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Fig. 1.

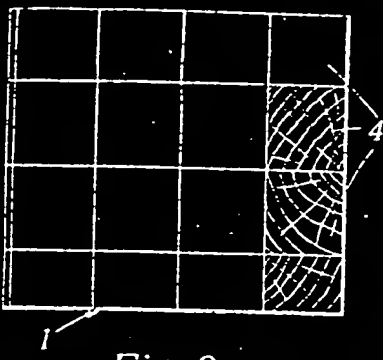


Fig. 2.

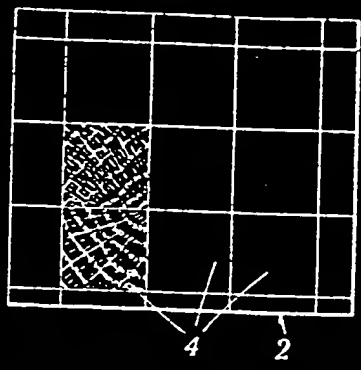


Fig. 3.

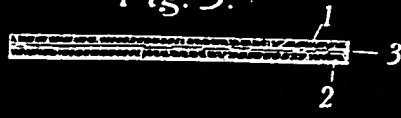


Fig. 4.

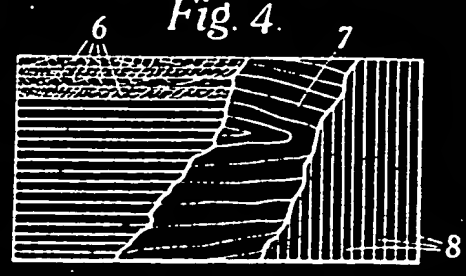
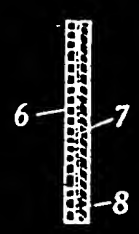


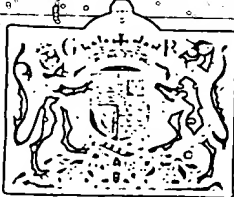
Fig. 5.



each layer $\frac{1}{16}$ - $\frac{1}{4}$
any 3 of layers
any joint all adhesives

[This Drawing is a reproduction of the Original on a reduced scale]

PATENT SPECIFICATION



Application Date: March 21, 1929. No. 9171/29

Complete Left: Dec. 21, 1929.

Complete Accepted: June 23, 1930.

331,189

PROVISIONAL SPECIFICATION.

Improvements in Wood Panels, Sheets or Slabs for use in the Surfacing of Floors and other Flat Surfaces and in the Method of Manufacturing same.

We, **SMITH, WHITE & COMPANY**, Limited, a British Company, and **HENRY LUCAS KRAMER**, a British Subject, both of 1, Adam Street, Adelphi, in the City of Westminster, Administrative County of London, do hereby declare the nature of this invention to be as follows:—

This invention relates to wood panels, sheets or slabs for use in the surfacing of floors and other flat surfaces and in the method of manufacturing same and it has for its object the production of a panel of any desired thickness in which the wearing surface is built up of a plurality of sections secured together, all of said sections having the grain of the wood disposed vertically so as to produce a hard wearing surface.

We are aware that it is not new per se to manufacture paving blocks adapted to be laid so that the grain is disposed vertically but it is not possible by known methods to produce blocks of a lesser thickness than about one inch, owing to the tendency of the wood to split. According to this invention it is possible to produce sheets or veneer thickness with the grain vertically disposed and sheets thus produced may be attached by any suitable adhesive or by hidden pins to the surface it may be desired to cover or to other sheets, so as to produce a panel of a plurality of thickness.

The method of forming the panels is as follows:—

A plurality of staves of wood of square or other section are placed parallel to each other, each staff having a suitable adhesive applied thereto. When a sufficient number of staves to produce a panel of the desired section have been assembled, they are placed in a press and allowed to remain until dry. When removed from the press the staves are in the form of a column, and this may then be cut into panels of any desired thickness from about one sixteenth of an inch by means of a suitably formed saw or cutter.

It will be obvious that staves of

different kinds of wood may be employed to impart a chequered appearance to the panels.

The panels thus formed may be used in various ways, for example:—

According to one method of construction a multi-ply panel consisting of a plurality of panels or thin layers forming panels are secured together by means of any suitable adhesive face to face the joints in one layer being staggered relatively to the joints in the adjacent layer. A panel thus formed may be secured to the floor or other surface by means of a suitable adhesive or by hidden pins.

According to a modification a panel formed in the manner described may be secured by a suitable adhesive or other suitable means to the face of a compensating panel composed of a plurality of strips of wood arranged in different directions secured together within and to a surrounding framework. The panel thus formed may be secured to the floor surface in any desired manner according to the nature of the surface to which it is to be applied, such as by a plastic cement in which case the back face of the compensating panel would preferably be furnished with grooves, recesses or the like into which the cement or the like would be caused to enter and key the panel in position.

According to a still further modification panels formed in accordance with this invention may, if desired, be used in combination with panels formed with the grain of the wood horizontally disposed, that is, straight grained, for example, a panel of straight grain may be interposed between two end grain panels or any other desired combination of panels may be employed.

Dated this 15th day of March, 1929.

PHILLIPPS,
Chartered Patent Agents,
70, Chancery Lane, London, W.C.2.
For the Applicants.

COMPLETE SPECIFICATION.

Improvements in Wood Panels, Sheets or Slabs for use in the Surfacing of Floors and other Flat Surfaces and in the Method of Manufacturing same.

We, SEYMOUR WHITE & COMPANY, LIMITED, a British Company, and HENRY LUCIEN KRASNER, a British Subject, both of 1, Adam Street, Adelphi, in the City of Westminster, Administrative County of London, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to wood panels, sheets or slabs for use in the surfacing of floors and other flat surfaces and in the method of manufacturing same, and it has for its object the production of a panel of any desired thickness in which the wearing surface is built up of a plurality of sections secured together, the said sections having the grain of the wood disposed vertically so as to produce a hard wearing surface.

In carrying out this invention, we employ the known method in which a plurality of staves or sheets of wood of any desired section or thickness are placed in parallel relation to each other, a suitable adhesive being applied to the face or surface of each staff or sheet which will abut or contact with an adjacent sheet. When a sufficient number of staves or sheets have been assembled, to produce a panel of the desired section, the block thus formed is placed in a press and allowed to remain unworked, until perfectly dry. When removed from the press the block is a unitary structure in the form of a solid log which may, by means of a suitably formed saw or cutter, be cut into panels of any desired thickness from about one sixteenth of an inch, but the invention is characterised in that a plurality of said end grain sheets are secured together in layers with the joints in the respective layers staggered relatively to each other.

In the accompanying drawing which illustrates some embodiments of this invention:—

Figure 1 illustrates in plan one side of a panel constructed in accordance with one embodiment of the invention.

Figure 2 is a similar view of the opposite side, and

Figure 3 is a side elevation of Figure 1.

Figure 4 is a plan of a modification, and

Figure 5 is an end view thereof.

In the embodiment illustrated in Figures 1, 2 and 3 the panel is constructed of three layers or sheets 1, 2 and 3. Each layer is produced by arranging a plurality of lengths of wood 4, rectangular in cross section, side by side in parallel relation to each other, a suitable adhesive being applied to two, three or four of the surfaces of each length according to its position, so that it may be caused to unite with the adjacent lengths. When a sufficient number of lengths of wood have been placed together to form, in cross section, a panel of the desired size, the block thus formed is placed in a suitable press and allowed to remain unworked until perfectly dry. When the block is removed from the press as a unitary structure in the form of a solid log, it may be cut into sheets or panels of any desired thickness. The sheets thus formed are superposed in layers with the joints in the respective layers staggered relatively to each other. Any number of layers may be superposed, but in Figure 3 three such layers are shown.

As a modification, the sheet or layer 3 may be of straight grain wood and the layers 1, 2 of end grain wood.

The panel thus formed may be secured to the floor or other surface in any desired manner, according to the nature of the surface to which it is to be applied; for example, by plastic cement, hidden pins or the like.

According to the modification shown in Figures 4 and 5, the unitary structure or log from which the end grain sheets are cut is composed or built up of a plurality of sheets of wood placed face to face, so that the end grain sheet is composed of a plurality of parallel strips united together by means of any suitable adhesive.

In use, the end grain sheet may, as in the arrangement above described, be used in various ways; for example, when used to form a three ply sheet, the end grain strips 6 composing the sheet on one face of the straight grain sheet 7 are preferably disposed at right angles to the end grain strips 8 composing the sheet on the opposite side as shown in Figures 4 and 5. It will be obvious that wood of different kinds may be employed so as to impart a chequered or varied appearance to the panel.

Having now particularly described and ascertained the nature of our said invention, and in what manner the same is to be performed, we declare that what we claim is:—

5 1. The method of manufacturing wood panels, sheets or slabs according to which a plurality of staves or sheets of wood are placed in parallel relation to each other and are formed into a unitary structure by a suitable adhesive and are subsequently cut at right angles to the grain into panels or sheets of any desired thickness, characterised in that a 10 plurality of said end grain sheets are secured together in layers with the joints in the respective layers staggered relatively to each other.

20 2. The method of manufacturing wood panels, sheets or slabs composed of a

plurality of sections of wood having the grain of the wood disposed vertically as claimed in Claim 1, according to which two end grain sheets are combined together with a sheet of straight grain interposed between, the joints in one end grain sheet being staggered relatively to the joints in the other end grain sheet, or disposed at right angles to each other. 25

3. A multi-ply panel constructed and arranged substantially as described with reference to Figures 1, 2 and 3 of the accompanying drawing. 30

4. A multi-play panel constructed and arranged substantially as described with reference to Figures 4 and 5 of the accompanying drawing. 35

Dated this 21st day of December, 1929.
PHILLIPSS.